

TO ASSESS THE STROMAL EXPRESSION OF CD10 IN INVASIVE DUCTAL CARCINOMA OF BREAST AND IT'S CORRELATION WITH HISTOLOGICAL GRADE, ER, PR AND HER2/ NEU EXPRESSION

ABSTRACT

BACKGROUND

Breast cancer is the most common cancer among women in India according to National cancer registry programme 2011 report. Stroma has a important role in the pathogenesis of carcinoma of breast. Stromal marker can be novel marker for assessing the prognosis of breast cancer which is increasing in incidence.

AIM

The present study aims to study the expression of CD10 in stroma of invasive ductal carcinoma of breast NOS type and to assess its relationship with histopathological grade, hormonal receptor status and HER2/neu overexpression.

MATERIALS AND METHODS

With the representative sections of 30 IDC NOS type hematoxylin and eosin staining was done. Immunohistochemistry was done with ER, PR, HER2 and CD10. CD10 expression in stroma(>30% stromal positivity was considered positive) of invasive ductal carcinoma was studied and statistically analyzed with histopathological grade, ER, PR and HER2/neu.

RESULTS

73% (22/30) cases showed positivity for stromal CD10, (46%(14) strongly positive and 27%(8) weakly positive). 92%(13/14) of CD10 positive cases were negative for ER and PR. 71%(10/14) of CD10 positive cases showed HER2/neu positivity. 77%(10/13) of CD10 positive cases were high grade carcinomas. CD10 expression was significantly associated with ER and PR negativity(P value<0.05), HER2/neu positivity and higher grade(P value <0.05).

CONCLUSION

Stromal CD10 expression is inversely correlated with hormonal receptors and directly correlated with higher tumor grade and HER2 positivity. CD10 could be used as novel prognostic marker in carcinoma of breast and used for drug development. Further studies are needed to assess the effect of chemotherapy on CD10 status, to correlate with chemotherapeutic response.

Key words: breast carcinoma, stromal CD10, prognostic marker, stromal marker.